

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: BRMLB-9007-00(014) Fulton **OFFICE:** Engineering Services
P.I. No.: 752015
Courtland Street Bridge Replacement **DATE:** June 16, 2011

FROM: Ronald E. Wishon, State Project Review Engineer *REW*

TO: Bobby K. Hilliard, PE, State Program Delivery Engineer
Attn.: Albert Shelby

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

The VE Study for the above project was held March 7-10, 2011. Responses were received on June 15, 2011. Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. The Project Manager shall incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project.

| ALT # | Description | Potential Savings/LCC | Implement | Comments |
|-------|-----------------------------------------------------|---------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A-8 | Provide pedestrian access throughout construction | Cost increase \$(-20,000) | No | In coordination with Georgia State University, a pedestrian detour plan will be created that both facilitates student movement and limits the liability of the Department and the Contractor during the construction process. |
| B-1 | Use Class A Concrete for the sidewalk on the bridge | Proposed = \$87,000 Actual = \$1,455 | No | The cost comparison shown in the VE Study report simply compares the unit prices for Class AA and Class A concrete. The unit costs for these items include additional items such as stay-in-place forms. The savings must compare the true difference in actual material. In general, the actual material cost difference is an additional \$5/yd ³ . Based on the volume needed for the sidewalks on this project, the Class AA concrete will cost approximately \$1,500 more than Class A concrete. |

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|-----|-------------------------------------------------------------------------------------------------------------------------|-----------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| B-2 | Eliminate parapet alongside Library North building | \$32,000 | No | The library is located a foot behind the existing back of the barrier. The barrier is placed between the sidewalk and the library to protect pedestrians from falls and to protect the structure from vehicular impact. In addition, the bridge and sidewalk would require additional width in the area along the library, thus reducing a significant part of the savings. |
| D-1 | Use steel beams in lieu of Bulb Tee Modified 65 inch beams to span both MARTA and CSX railroad tracks | \$42,000 | No | While using steel beams would simplify construction of this span, there will be additional time required for work over the railroad track for installing cross bracing and other structural members. Steel beams will be more expensive and require additional long term maintenance that would take place over CSX and MARTA rail lines. The proposed savings would be negated by the first cycle of maintenance. |
| D-2 | Construct the Courtland bridge north of CSX railroad using Type III beams with eight 81 foot spans and one 85 foot span | \$368,000 | No | The VE Study span arrangement places a bent directly in the entrance to the GSU parking deck across from the GSU Counseling Center and a bent in the sidewalk along the north side of Decatur Street. This arrangement requires the same number of bent locations as the existing configuration; therefore, the savings would be in the fabrication cost of the superstructure units. The study does not discuss reducing the number of beam lines; therefore the linear foot quantity used to compare the beams appears to have been an error (see attached cost worksheet D-2). The recommendation also assumes reduced caisson sizes for the difference between the BT 63 beams and the Type III beams but doesn't make a similar comparison between the Type III and Type I mod substructures. The comparisons will be similar and will make the cost of the substructure units almost identical. Additionally, the Type III beams would reduce the existing vertical clearance adjacent to the University Center by an additional 1'5". GSU allows deliveries and pickups in this area and the 10" vertical clearance would not be sufficient. |

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|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D-2.1 | Construct Courtland bridge north of CSX railroad using Type II beams perpendicular to the roadway and the cap parallel to the roadway (trellis bridge) | Proposed = \$591,000 Actual = Cost increase -(\$1,900,000) | No | <p>This alternative requires more structural units than the original design, thus making it more expensive when comparing the options strictly on construction material cost. The additional material for this type of construction north of Decatur Street alone is estimated to be slightly over \$950,000 (see attached estimate).</p> |
| D-2.2 | Salvage/strengthen (using micro piles and pier encasement) and reuse the existing columns and footings | Proposed = \$192,000 Actual = Cost increase -(\$92,000) | No | <p>This alternative assumes an existing spread footing can be strengthened by installing micropiles to transfer the load. This option also assumes a design can be accomplished by incorporating the existing steel piles and encasing them in a concrete column. The micropile installation option has a similar risk of impacting subsurface utilities as the caisson option. The number of units it would replace, (10), does not suggest there would be any measurable time savings for construction. Without any information about the existing foundation it is not possible to know if the proposed retrofit is a suitable solution. It is possible shoring would be required, and that is not reflected in the savings. Similar to the calculations for D-2, this recommendation does not discuss reducing the number of beam lines; therefore the linear foot quantity used to compare the beams appears to have an error (see attached worksheet D-2.2). When the actual number of beams is considered, this option increases the cost of the project. Additionally, the Type II beams would reduce the existing vertical clearance adjacent to the University Center by an additional 9". GSU allows deliveries and pickups in this area and the 10" vertical clearance would not be sufficient.</p> |

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|-------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D-3 | Construct the Courtland bridge south of CSX railroad using Type III beams with three 85 foot spans | Proposed = \$168,000 Actual = \$31,400 | No | This alternative requires one additional bent location and assumes the savings in the fabrication cost of the superstructure units would offset the cost of the additional substructure unit. The span over MARTA and CSX rail lines would require an additional 10' in length to account for the span difference. This would require either a larger pre-stressed beam (violating CSX vertical clearance requirements) or a steel beam alternative (increasing the cost of the structure and requiring additional long term maintenance). This would also require a longer wall, and the additional bent location would further restrict access by GBA and to the delivery locations at the Georgia Freight Depot. The VE calculations contained an error in the difference in beam lengths and did not account for the cost of the additional wall (see attached worksheet D-3). |
| D-3.1 | Construct the Courtland bridge south of CSX railroad using BT 54 inch beams with three shorter 88 foot spans. | Proposed = \$17,000 Actual = Cost increase -\$72,300 | No | Similar to Alternative D-3, this alternative assumed the savings in the fabrication cost of the superstructure units would offset the cost of the additional substructure unit. The VE calculations contained an error in the difference in beam lengths thus affecting the actual cost difference (see attached worksheet D-3.1). Also, this alternative would require an additional bent location that would further restrict access by the GBA and to the delivery locations at the Georgia Freight Depot. |

The Office of Engineering Services concurs with the Project Manager's responses.

Approved:


Gerald M. Ross, PE, Chief Engineer

Date:

6/17/11

REW/LLM

Attachments

Russell McMurry
Bobby Hilliard/Stanley Hill/Albert Shelby
Paul Liles/Ben Rabun/Bill Duvall/Bill Ingalsbe/
Jonathan Cox/Laura Rish
Lee Upkins/Dona Welch
Ken Werho
Lisa Myers
Matt Sanders

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE BRMLB-9007-00(014), Fulton County OFFICE Program Delivery
Courtland Street at CSX RR Bridge Replacement
P.I. No. 752015 DATE June 10, 2011

FROM Bobby K. Hilliard, PE, State Program Delivery Engineer *for S.H.*

TO Ron Wishon, State Review Engineer

SUBJECT **Value Engineering Study Report Responses**

The Office of Program Delivery has received the Value Engineering Final Report dated March 23, 2011. The study developed seventeen alternatives to be evaluated. The attached responses from the engineering firm of record, Hatch Mott MacDonald, are based on a collaborative effort inclusive of the consultant firm, Hatch Mott MacDonald (Sean Garland), the Office of Bridge Design (Bill Duvall), the Office of Construction (Melissa Harper) and the Office of Program Delivery (Albert Shelby).

If there are any questions or concerns, please contact the project manager, Albert Shelby, at 404-631-1758.

S.H.
BKH:SH:avs

Attachments:

1. VE responses from Hatch Mott MacDonald
2. Concurrence from the Office of Bridge Design



Hatch Mott MacDonald
2550 Heritage Court, SE, Suite 250
Atlanta, GA 30339
T 770.952.1022
www.hatchmott.com

June 6, 2011

**RE: Value Engineering Study Alternatives for Courtland Street Bridge Replacement,
BRMLB-9007-00 (014), P.I. No. 752015**

Hatch Mott MacDonald has received the initial Value Engineering Study Alternatives from MACTEC for the above mentioned project. Below are the recommendations along with Hatch Mott MacDonald responses.

1. Recommendation A-8: Construct a protected pedestrian walkway through the construction area between University Center and Library North.

VE Team Increase: \$20,000.

No, will not implement. In coordination with Georgia State University a pedestrian detour plan will be created that both facilitates student movements and limits the liability of the Department and the contractor during the construction process.

2. Recommendation B-1: Use Class A Concrete for the Sidewalks on the Bridge.

VE Team Savings: \$87,000.

No, will not implement. The cost comparison shown in the VE studies simply compares unit prices for Class AA and Class A as shown in the GDOT mean item summary. The comparison of cost for concrete on a sidewalk cannot be compared by simply comparing those cost since Class AA concrete, which is commonly used on the bridge superstructure, include cost for additional items including stay-in-place forms. The savings would need to compare the true difference in actual material and supplying of each concrete type. In general, the actual material cost difference between Class AA and Class A concrete is an additional \$5/yd³. Based on the volume needed for the sidewalks on this project, Class AA will cost approximately \$1,500 more than Class A concrete. Since the Class A concrete would only be called for on the sidewalk (which is a small volume compared to the entire project) the savings would probably be negated by the alternate mix design and manufacturing making the cost almost identical.

Revised Savings: $291\text{yd}^3 \times \$5/\text{yd}^3 = \$1,455$.

3. Recommendation B-2: Eliminate the bridge parapet alongside the Library North Building.

VE Team Savings: \$32,000.

No, will not implement. The library is located approximately a foot behind the existing back of barrier (see attached photo) with the distance increasing at the windows. The barrier is placed between the sidewalk and library to protect pedestrians from falls while protecting the structure from vehicular impact. In addition, the bridge and sidewalk would need to be widening in that area to reduce the opening thus reducing a significant portion of any potential savings.

4. Recommendation D-1: Use Steel Beams in-lieu-of Bulb Tee Modified 65-inch Beams to span over both MARTA and the CSX Railroad tracks.

VE Team Savings: \$42,000.

No, will not implement. While using steel beams in that span may be easier to erect, there will be additional time required over the tracks for installing cross bracing and other structural members. Steel beams will be more expensive and require additional long term maintenance that would take place over CSX Railroad and Marta rail lines. The 125'-0" long span would require at least 7 steel plate girders approximately 54" deep (an estimated total surface area of approximately 18,000 ft² including diaphragms, bearings, etc.) that would need to be inspected, maintained, and painted. With a \$3/sf cost for painting of the steel over the railroad, the proposed savings would be exceeded during the first painting and would require additional cycles over the lifetime of the structure.

5. Recommendation D-2: Construct the Courtland Street Bridge North of the CSX Railroad crossing (Pier 4) using only Type III Beams with eight, 81-foot spans and one, 85-foot span.

VE Team Savings: \$368,000.

No, will not implement. The arrangement calling for 1-85' span and 4- 81' spans places a bent directly in the entrance to the GSU parking deck across from the GSU Counseling Center. It also places a bent in the sidewalk along the north side of Decatur Street. This arrangement requires the same number of bent locations as the existing configuration therefore assuming the savings would be in the fabrication cost of the superstructure units. The study does not discuss reducing the number of beam lines therefore the linear foot quantity used to compare the beams appear to have an error (see attached Worksheet D-2). The recommendation also assumes reduced caisson sizes for the difference between the BT 63 beams and the Type III beams but doesn't make a similar comparison between the Type III and Type I Mod substructures. The comparisons will be similar and with the number of units will actually make the cost of the substructure units almost identical. Additionally the Type III beams would reduce the existing vertical clearance adjacent to the University Center by an additional 1'-5" (approx. 10' vertical clearance) where GSU allows for deliveries and pickups.

6. Recommendation D-2.1: Alternate to D-2. Construct the Courtland Street Bridge North of the CSX Railroad crossing (Pier 4) using piers set parallel to the roadway and Type II beams perpendicular to the roadway.

VE Team Savings: \$591,000.

No, will not implement. This recommendation requires more structural units than the original design thus making it more expensive when comparing the options strictly on construction material. The additional material cost for this type of construction north of Decatur Street alone is estimated to be slightly over \$950,000 (see attached estimate). The cost increase can only be offset by placing a value on construction duration. While the construction duration cost may not completely offset the material cost, the shortened duration in the major pedestrian traffic area of GSU would have significant value for the university.

South of Decatur Street does not have the level of construction restrictions as the north section. The VE proposed layout would require substantially more than the two substructure units that would be replaced in the original design. The additional material cost for this type of construction south of Decatur Street is estimated to be slightly over \$950,000 with less reduction in construction time if any at all. Based on this it is recommended that this type of construction not be considered.

Revised cost increase: \$1,900,000

7. Recommendation D-2.2: Alternate to D-2. Salvage / strengthen (using micro piles or pier encasement) and reuse the existing columns and footings.

VE Team Savings: \$192,000.

No, will not implement. This recommendation assumes an existing spread footings can be strengthened by installing micropiles to transfer the load. This option also assumes a design can be accomplished by incorporating the existing steel piles and encasing them in a concrete column. All of the beams would be changed to Type II and the 19 substructure units that need to be strengthened with micropiles will not impact the existing subsurface utilities. The micropile installation has similar risk of impacting subsurface utilities as the cassion option. The number of units it would replace (10) does not suggest that there will be any measureable time savings for construction since the superstructure would have to be removed prior to removing the existing columns and bent caps. Without any information about the existing foundation it is not possible to know if the proposed retrofit is a suitable solution. If the footing needs to be extended to transfer the additional load from the heavier proposed Type II beams, shoring would be required that is not included in the price shown in the VE. Similar to the calculation done on Recommendation D-2, this recommendation also does not discuss reducing the number of beam lines therefore the linear foot quantity used to compare the beams appear to have an error (see attached Worksheet D-2.2). When the actual number of beams are considered this option increases the cost of the project. Additionally the Type II beams would reduce the existing vertical clearance adjacent to the University Center by an additional 9" (approx. 10' vertical clearance) where GSU allows for deliveries and pickups.

Revised cost increase: \$92,000

8. Recommendation D-3: Construct the Courtland Street Bridge South of the CSX Railroad crossing (Pier 3) using Type III beams with three, 85-foot spans.

VE Team Savings: \$168,000.

No, will not implement. The alternative requires one additional bent location than the existing configuration therefore assuming the savings in the fabrication cost of the superstructure units would offset the cost of the additional substructure unit. The span over Marta and CSX would need to get 10' longer to account for the span difference thus requiring either a larger pre-stressed beam (violating CSX vertical clearance requirements) or a steel beam alternative (increasing the cost of the structure and requiring additional long term maintenance). This alternative would require the wall to get longer and with the additional bent location would further restrict access by the GBA and delivery locations at the Georgia freight depot. The VE calculation shows an error in the difference in beam lengths and doesn't account for the cost of an additional wall (see attached Worksheet D-3).

Revised cost increase: \$31,400.



Hatch Mott
MacDonald

9. Recommendation D-3.1: Alternate to D-3. Construct the Courtland Street Bridge South of the CSX Railroad crossing (Pier 3) using Bulb Tee 54-inch beams with 88-foot spans.

VE Team Savings: \$17,000

No, will not implement. Similar to Recommendation D-3, this alternative assuming the savings in the fabrication cost of the superstructure units would offset the cost of the addition substructure unit. The VE calculation shows a similar error in the difference in beam lengths thus affecting the actual cost difference (see attached Worksheet D-3.1). In addition to being more expensive this alternative would require an additional bent location that would further restrict access by the GBA and delivery locations at the Georgia freight depot.

Revised cost increase: \$72,300.

If you have any questions or require additional information feel free to contact me @ (770) 200-1716.

Sean Garland, PE
Principal Project Manager
Sean.Garland@hatchmott.com

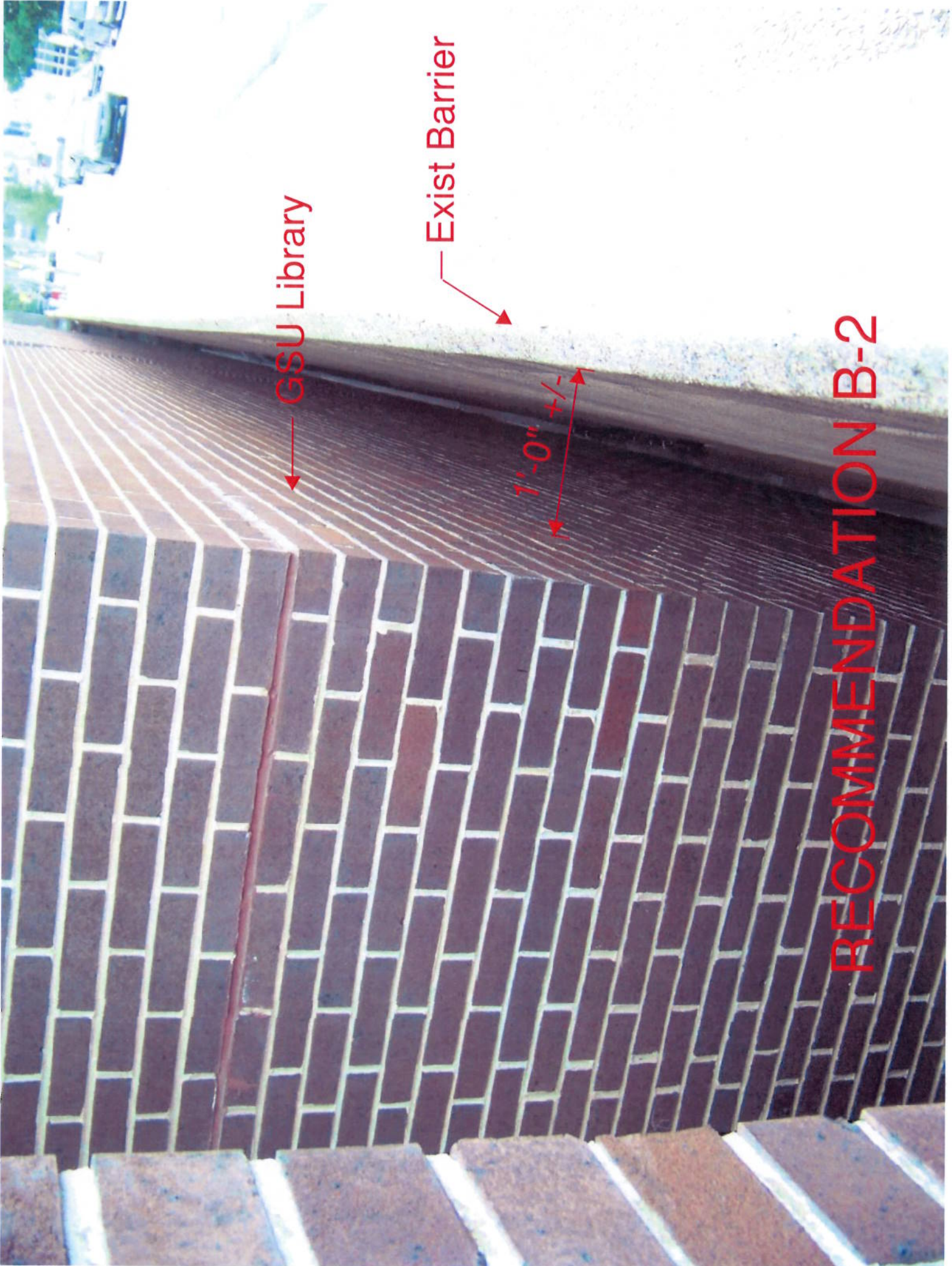
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GSU Library

Exist Barrier

1'-0" +/-

RECOMMENDATION B-2



| COST WORKSHEET | | | | | | | |
|-----------------------------------------------------|-------------|--------------------------|------------------|-------------------|-----------------------------------------------|------------------|--------------------------------------|
| Project: Courtland Street Bridge Replacement | | | | | Idea No.: D-2 Client: GDOT Sheet 4 of 6 | | |
| CONSTRUCTION ELEMENT | | ORIGINAL ESTIMATE | | | NEW ESTIMATE | | |
| Item | Unit | No. Units | Cost/Unit | Total Cost | No. Units | Cost/Unit | Total Cost |
| Original Design: | | | | | | | |
| Bulb Tee 63-inch Beams | LF | 1,747 | \$377.36 | \$659,248 | | | |
| Bulb Tee 54-inch Beams | LF | 808 | \$360.44 | \$291,236 | | | |
| Type III Beams | LF | 1,872 | \$283.78 | \$531,236 | | | |
| Type I Beams | LF | 1,152 | \$208.28 | \$239,939 | | | |
| Large Piers for BT 63" Beams | LS | 3 | \$173,000 | \$519,000 | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | → Total = 5579 | | | |
| VE Design: | | | | | | | |
| Type III Beams | LF | | | | 5579 | | 1,583,209 |
| | | | | | -5,131 | \$283.78 | -\$1,456,075 |
| Small Piers for Type III Beams | LS | | | | 3 | \$139,000 | -\$417,000 |
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| SUBTOTAL | | | | \$2,240,659 | | | -\$1,873,075 |
| TOTAL ROUNDED | | | | \$2,241,000 | | | 2,102,209 -\$1,873,000 |

BRIDGE: Courtland Street Bridge
COUNTY: Fulton
P.I. NO:
PROJECT:



**Hatch Mott
MacDonald**

JOB NO: 257724
DESIGNED BY: SHG
DATE: 4/25/2011

ORIGINAL DESIGN

| ITEM NUMBER | ITEM DESCRIPTION | UNITS | UNIT PRICE | QUANTITY | COST |
|----------------|-------------------------------------|-------|---------------|----------|--------------|
| 500-1006 | SUPERSTR CONCRETE, CL AA, BR NO - | LS | \$1,058.67 | 476 | \$504,350 |
| 500-3002 | CLASS AA CONCRETE | CY | \$1,059.00 | 290 | \$306,581 |
| 507-9001 | PSC BEAMS, AASHTO TYPE I, BR NO - | LF | \$208.00 | 1152 | \$239,616 |
| 507-9003 | PSC BEAMS, AASHTO TYPE III, BR NO - | LF | \$284.00 | 1248 | \$354,432 |
| 524-0010 | DRILLED CAISSON - 4.5' | LF | \$1,900.00 | 274 | \$520,600.00 |
| TOTAL = | | | | | \$1,925,579 |

VE DESIGN OPTION

| ITEM NUMBER | ITEM DESCRIPTION | UNITS | UNIT PRICE | QUANTITY | COST |
|----------------|------------------------------------|-------|---------------|----------|--------------|
| 500-1006 | SUPERSTR CONCRETE, CL AA, BR NO - | LS | \$1,058.67 | 683 | \$723,177 |
| 500-3002 | CLASS AA CONCRETE | CY | \$1,059.00 | 777 | \$822,737 |
| 507-9002 | PSC BEAMS, AASHTO TYPE II, BR NO - | LF | \$246.00 | 1938 | \$476,748 |
| 524-0010 | DRILLED CAISSON - 4.5' | LF | \$1,900.00 | 450 | \$855,000.00 |
| TOTAL = | | | | | \$2,877,663 |

Cost Difference = \$952,084

| COST WORKSHEET | | | | | | | |
|-----------------------------------------------------|-------------|--------------------------|------------------|-------------------|-------------------------------------------------|------------------|-------------------------------------|
| Project: Courtland Street Bridge Replacement | | | | | Idea No.: D-2.2 Client: GDOT Sheet 5 of 6 | | |
| CONSTRUCTION ELEMENT | | ORIGINAL ESTIMATE | | | NEW ESTIMATE | | |
| Item | Unit | No. Units | Cost/Unit | Total Cost | No. Units | Cost/Unit | Total Cost |
| Original Design: | | | | | | | |
| Large Piers | LS | 8 | \$173,000 | \$1,384,000 | | | |
| Bulb Tee 63-inch Beams | LF | 1,747 | \$377.36 | \$659,248 | | | |
| Bulb Tee 54-inch Beams | LF | 808 | \$360.44 | \$291,236 | | | |
| Type III Beams | LF | 1,872 | \$283.78 | \$531,236 | | | |
| Type I Beams | LF | 1,152 | \$208.28 | \$239,939 | | | |
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| VE Design: | | | | | | | |
| Strengthen Pier / Footing | LS | | | | 1 | \$1,466,000 | \$1,466,000 |
| Longitudinal Pier Cap | LS | | | | 5579 1 | \$359,000 | \$359,000 |
| Type II PSC Beams | LF | | | | 4,428 | \$246.03 | \$1,089,420 |
| | | | | | | | 1,372,601 |
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| SUBTOTAL | | | | \$3,105,659 | | | \$2,914,420 |
| TOTAL ROUNDED | | | | \$3,106,000 | | | 3,198,000 \$2,914,000 |

[illegible]

[illegible]

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE BRMLB-9007-00(014) FULTON COUNTY
Courtland Street Bridge Replacement
P.I. No. 752015

OFFICE Atlanta, GA
DATE June 8, 2011

FROM *for* Benjamin F. Rabun, III, P.E., State Bridge Engineer

TO Bobby Hilliard, State Program Delivery Engineer
Attn: Albert Shelby

SUBJECT **BRIDGE DESIGN VALUE ENGINEERING RESPONSE**

The Value Engineering Study for the above referenced project dated March 23, 2011 contained nine VE Alternatives requiring responses from the Bridge Office: VE Alternatives A-8, B-1, B-2, D-1, D-2, D-2.1, D-2.2, D-3 and D-3.1. The consultant designer, Hatch Mott MacDonald, provided the Bridge Office with initial responses with their letter dated June 6, 2011. The Bridge Office concurs with the designer's recommendations.

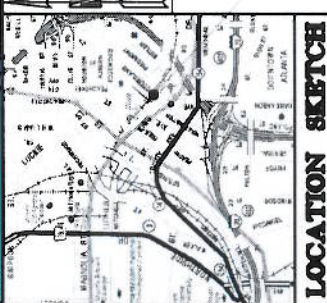
If you have any questions and/or comments, please contact Bill DuVall of the Bridge Design Office at (404) 631-1883 or at email address bduvall@dot.ga.gov.

BFR:WMD

Attachment: draft responses from Hatch Mott MacDonald dated 6/6/11

cc: Ron Wishon, Engineering Services
Bill DuVall, Bridge Design





NOTE: THE COORDINATES LISTED ARE MOST 2004
 HORIZONTAL DATA AND MAY BE
 DIFFERENT FROM THE STATE PLANE
 DATA. THE PROJECT IS IN FULTON COUNTY.

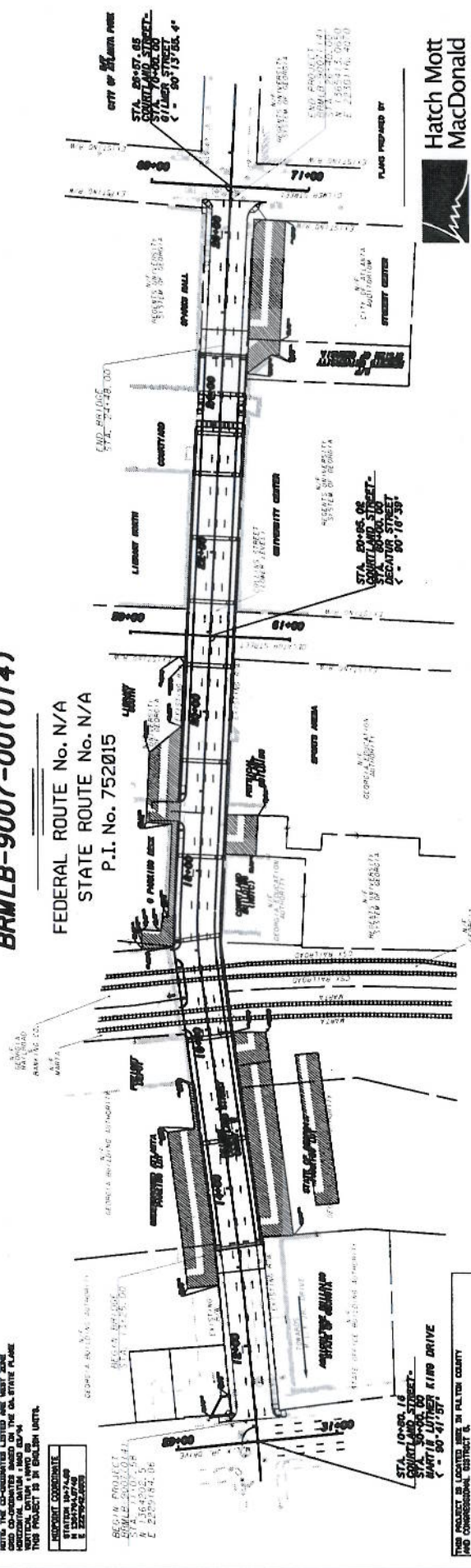
PROJECT COORDINATE
 NAD 83
 E 2257942.000
 N 364300.000
 E 2257942.000

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

PLAN AND PROFILE OF PROPOSED COURTLAND STREET BRIDGE OVER CSX RAILROAD

FULTON COUNTY
 FEDERAL AID PROJECT
 BRMLB-9007-00(014)

FEDERAL ROUTE No. N/A
 STATE ROUTE No. N/A
 P.I. No. 752015



HATCH MOTT
 MacDonald
 2550 Hedgcock Dr. SE, Suite 250 Atlanta, GA 30339

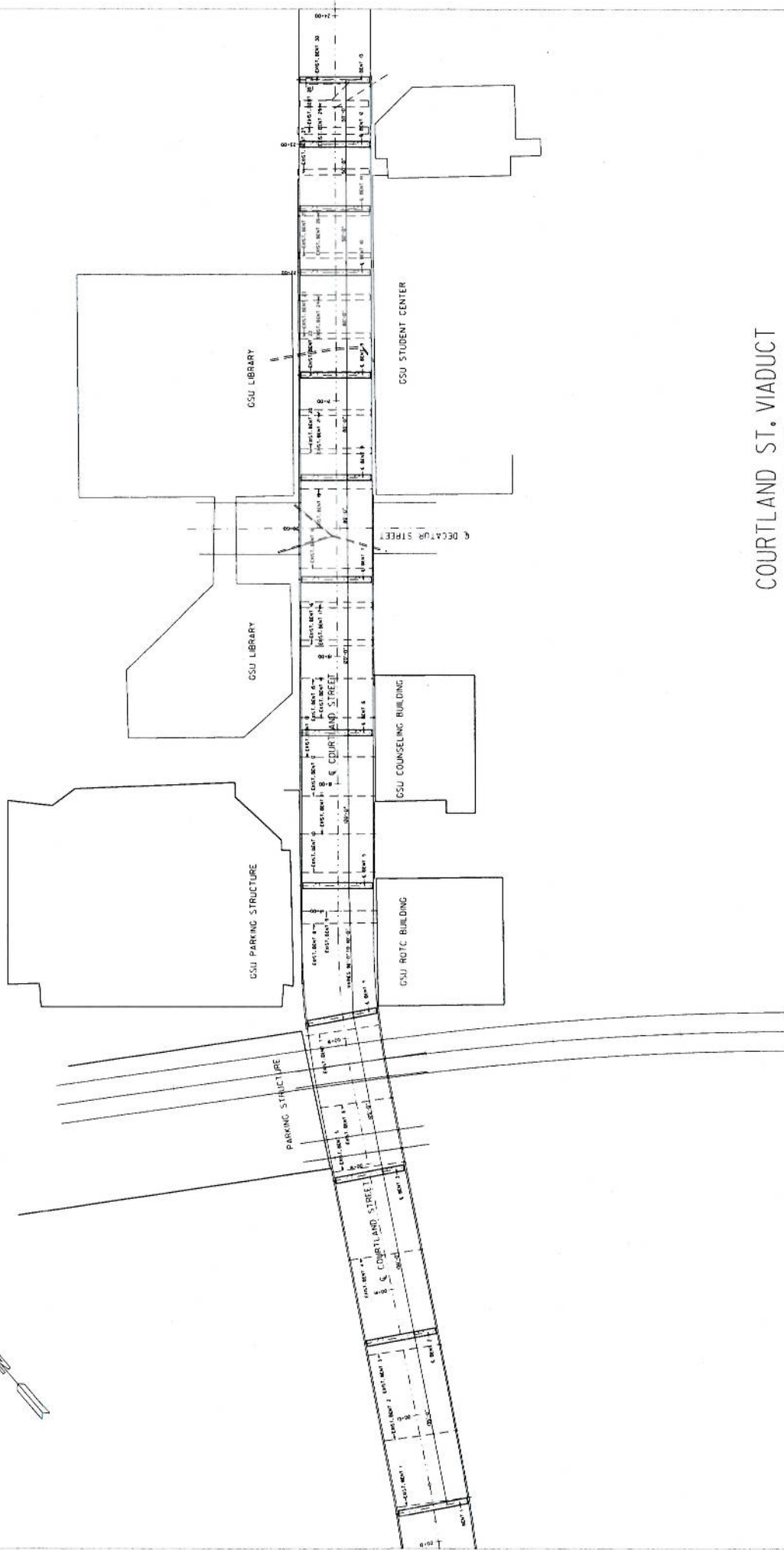
DATE: _____
 STATE URBAN DESIGN ENGINEER
 DATE: _____
 CHIEF ENGINEER
 LOCATION AND CORRELATION DATE: _____
 SCALE: _____
 REVISION: _____



| DESIGN DATA: | TRAFFIC ADT: | 18,400 (2017) | 24,800 (2037) |
|--------------------|--------------|---------------|---------------|
| TRAFFIC D.V.: | 2,802 (2017) | 2,802 (2037) | 2,802 (2037) |
| DIRECTIONAL DIST.: | 5% | 5% | 5% |
| % TRUCKS: | 5% | 5% | 5% |
| 24 HR. TRUCKS: | 5% | 5% | 5% |
| SPEED DESIGN: | 35 MPH | 35 MPH | 35 MPH |

THIS PROJECT IS LOCATED IN FULTON COUNTY
 AND CONGRESSIONAL DISTRICT 8.
 THE DATA TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANY INDICATED THEREOF, WHETHER BY
 ENGINEER OR OTHERWISE, IS FOR THE PURPOSE OF THE PROJECT AND IS NOT TO BE USED FOR ANY OTHER PURPOSE.
 THE DATA TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANY INDICATED THEREOF, WHETHER BY
 ENGINEER OR OTHERWISE, IS FOR THE PURPOSE OF THE PROJECT AND IS NOT TO BE USED FOR ANY OTHER PURPOSE.
 THE DATA TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANY INDICATED THEREOF, WHETHER BY
 ENGINEER OR OTHERWISE, IS FOR THE PURPOSE OF THE PROJECT AND IS NOT TO BE USED FOR ANY OTHER PURPOSE.

UPPER COURTLAND ST.

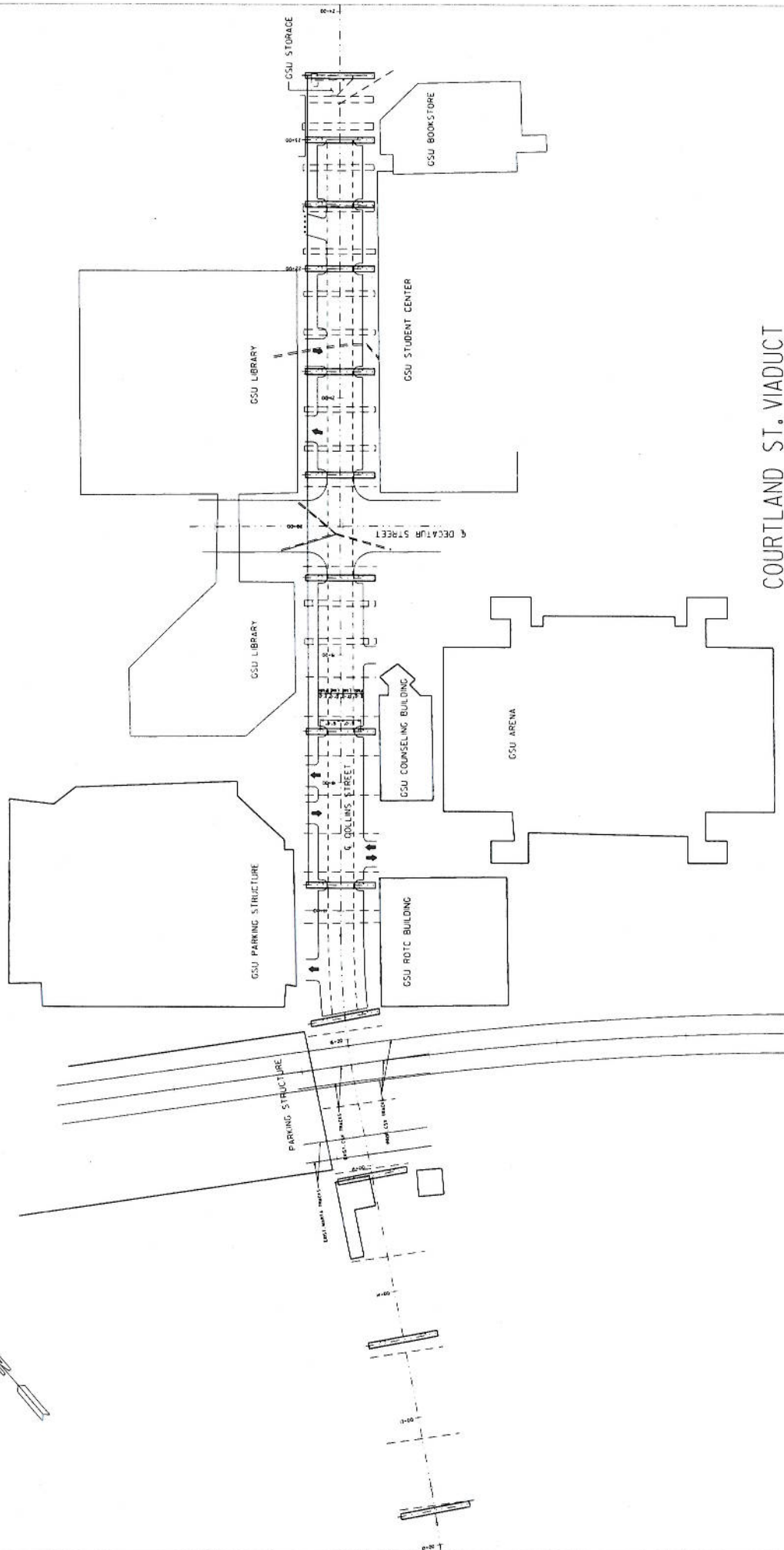


COURTLAND ST. VIADUCT
1-5-07

JBT
J.B. TRIMBLE, INC.
2550 Heritage Court SE
Suite 250
Atlanta, Georgia 30339



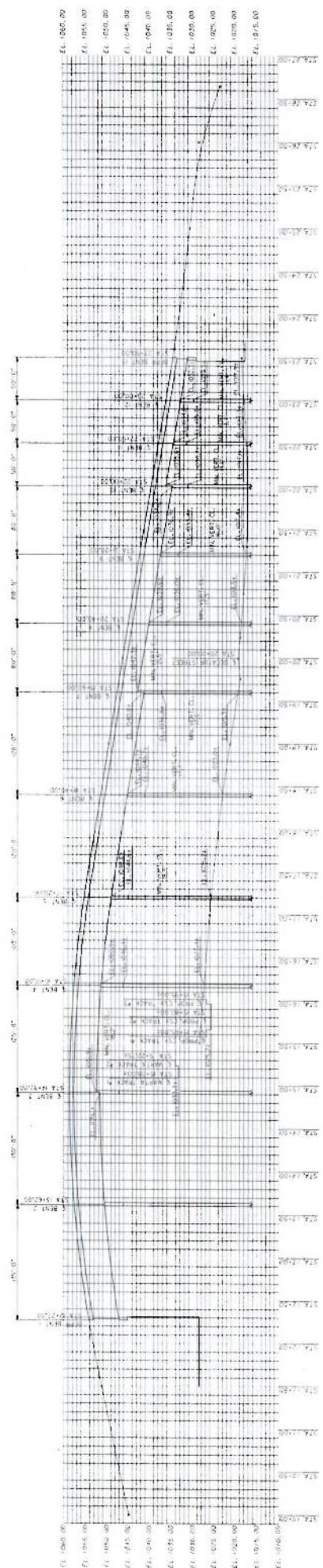
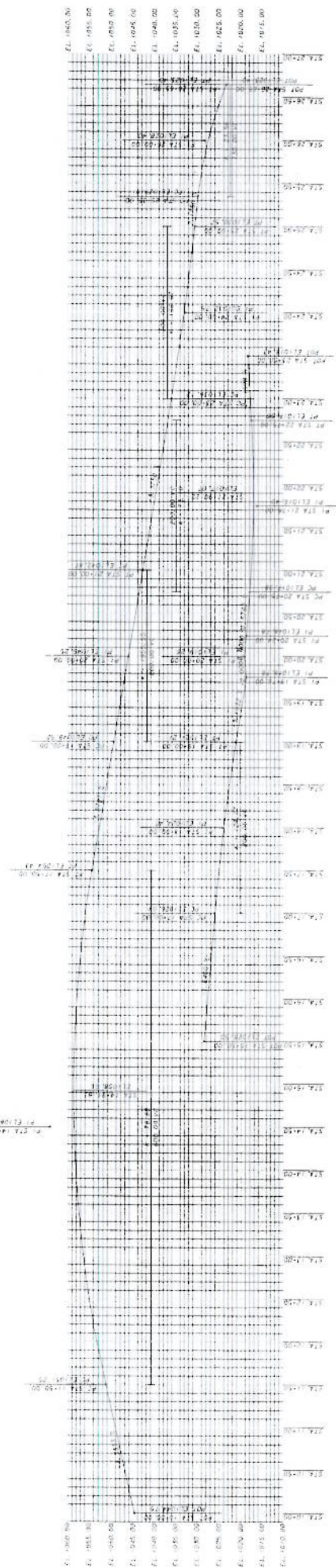
LOWER COURTLAND ST.



COURTLAND ST. VIADUCT
1-5-07

JBT
J.B. TRIMBLE, INC.
2550 Heritage Court SE
Suite 250
Atlanta, Georgia 30339

SCALE IN FEET
0 50 100 200



PRECONSTRUCTION STATUS REPORT FOR PI:752015-

| | | | |
|-----------------------------------------------------|-------------------------------|------------------------------------------|--------------------------------------------|
| PROJ ID : 752015- | CSX RR | CS 1868/COURTLAND STREET @ CSX RR | MGMT LET DATE : 05/15/2012 |
| COUNTY : Fulton | | | MGMT ROW DATE : 08/20/2010 |
| LENGTH (MI) 0.20 | MPO: Atlanta TMA | | BASELINE LET DATE: 08/10/2011 |
| PROJ NO.: BRMLB-9007-00(014) | TIP #: AT-070 | | SCHED LET DATE : 12/12/2013 |
| PROJ MGR: Shelby, Albert | MODEL YR : 2020 | | WHO LETS? : Prepare Plans for Shelf |
| AOHD Initials: SSH | TYPE WORK: Bridges | | LET WITH : |
| OFFICE : Program Delivery | CONCEPT: BR REPL | | |
| CONSULTANT: Consultant Design (DOT contract) | PROG TYPE: Replacement | | |
| SPONSOR : Atlanta | Prov. for ITS: N | | |
| DESIGN FIRM: Hatch Mott MacDonald, LLC | BOND PROJ : | | |

| BASE START | BASE FINISH | LATE START | LATE FINISH | TASKS | ACTUAL START | ACTUAL FINISH | % | PROGRAMMED FUNDS | | | | | | | |
|---------------|----------------|---------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------|------------------------|------------------------------|------------------------------|-----------------------------------------------|---------------------|--------------------------------|-----------|--|
| | | | | | | | | Activity | Approved | Proposed | Cost | Fund | Status | Date Auth | |
| 1/30/2009 | 3/17/2009 | | 7/7/2011 | Concept Development Concept Meeting PM Submit Concept Report Concept Report Review and Comments Management Concept Approval Complete Value Engineering Study | 7/1/1992 8/4/1992 12/1/1999 5/5/1995 6/6/1995 10/18/2010 | 6/12/1995 100 8/4/1992 100 1/9/2000 100 5/5/1995 100 6/12/1995 100 | 100 | PE PE ROW CST | 2010 2010 LOCL 2017 | 2010 2010 2013 2017 | \$1,268,047.00 400,000.00 18,680,677.06 | L110 LOC L110 | AUTHORIZED PRECST PRECST | 8/5/2009 | |
| 1/29/2009 | 11/18/2009 | | 7/14/2011 | Public Information Open House Held Environmental Approval Field Surveys/SDE | 12/4/2008 1/1/2011 12/15/1992 | 12/4/2008 20 3/19/1993 | 100 20 100 | | | | | | | | |
| 1/29/2009 | 11/4/2009 | 7/1/2011 | 4/5/2012 | Preliminary Plans | 2/7/2011 | | 13 | | | | | | | | |
| 3/12/2009 | 9/30/2009 | | 6/30/2011 | Preliminary Bridge Design | | | 95 | | | | | | | | |
| 1/29/2009 | 6/10/2009 | 7/1/2011 | 11/10/2011 | Underground Storage Tanks | | | 0 | | | | | | | | |
| 12/17/2009 | 12/17/2009 | 5/4/2012 | | PPR Inspection | | | 0 | | | | | | | | |
| 12/18/2009 | 4/8/2010 | 5/7/2012 | 8/10/2012 | R/W Plans Preparation | | | 0 | | | | | | | | |
| 4/9/2010 | 6/9/2010 | 8/13/2012 | 10/11/2012 | R/W Plans Final Approval | | | 0 | | | | | | | | |
| 1/25/2010 | 1/27/2010 | 6/12/2012 | 6/14/2012 | L & D Approval | | | 0 | | | | | | | | |
| 7/8/2010 | 8/4/2010 | 11/9/2012 | 12/6/2012 | R/W Authorization | | | 0 | | | | | | | | |
| 10/14/2010 | 10/27/2010 | 2/15/2013 | 2/28/2013 | Stake R/W | | | 0 | | | | | | | | |
| 10/1/2009 | 2/22/2010 | 7/1/2011 | 11/22/2011 | Bridge Foundation Investigation | | | 0 | | | | | | | | |
| 3/23/2010 | 1/28/2010 | 6/15/2012 | 2/28/2013 | Final Design | | | 0 | | | | | | | | |
| | 9/6/2010 | 8/8/2012 | 1/22/2013 | Final Bridge Plans Preparation | | | 0 | | | | | | | | |
| | 12/9/2010 | 3/29/2013 | 3/29/2013 | FFPR Inspection | | | 0 | | | | | | | | |
| 2/17/2010 | 12/30/2010 | 4/8/2013 | 4/19/2013 | Submit FFPR Responses (OES) | | | 0 | | | | | | | | |
| | | | | | Cost Estimate Amount | | | STIP AMOUNTS | | | | | | | |
| | | | | | Activity | Amount | Date | Activity | Cost | Fund | | | | | |
| | | | | | PE | \$1,268,047.00 | 4/8/2009 | PE | 0.00 | L110 | | | | | |
| | | | | | ROW | \$400,000.00 | | ROW | 0.00 | LOC | | | | | |
| | | | | | CST | \$15,943,778.00 | 3/2/2009 | CST | 0.00 | L110 | | | | | |

| Cost Estimate Amount | | STIP AMOUNTS | |
|----------------------|-----------------|--------------|------|
| Activity | Amount | Activity | Fund |
| PE | \$1,268,047.00 | PE | L110 |
| ROW | \$400,000.00 | ROW | LOC |
| CST | \$15,943,778.00 | CST | L110 |

| | |
|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PDD: [01C] /AQE. URBAN CONSULTANT. 10/8/99. At Ga. State Univ. 3/10/04. | District Comments |
| Bridge: WMD 05/06/11 CONSUL - HMM | Scope re-defined to include entire bridge per bridge maintenance report. |
| EIS: CE/NotAppd/NotOnSched Aug 10 ROW/Cox 04 26 11 | Stop Work issued 2-26-08 - Expired Contract. Prior Knowledge contract NTP with JB Trimble on 8/31/09 |
| LGPA: ATLANTA SGN DO ROW/UTIL & DETOURS 7-2-98[RESCISSON LETTER SENT 7-21-04 | VE study held March 7-10, 2011 - responses pending agreement of Bridge Office. PCRF submitted 2/28/11 for 8/2011 CE approval. 10/2011 ROW plans approval. 5/2012 SHELF plans - questions asked by OPC. (6/6/11) |
| Prog. Develop: STIP AMENDMENT #41 6-09 | |
| Programming: PR2/PE=5/27/92/ ARC TIP # AT70#1 7-2010#2 11-2010[CHANGED TO FOS PER FHWA 12-20-2010 | |
| Railroad: CSX | |
| Traffic Op: SEND PLANS FOR REVIEW 12-13-07 | |
| UST: MC: | |
| Utility: SUE Lvl A&B Compl 01/23/08-SO-Depp: YPF.Nd 2ndSub 003/11 | |
| EMC: #1363 (H85-W/V29), R/R BRIDGE, CONSULTANT | |
| Engr Services: VE Report distributed: 3/31/11 | |

| | | | |
|---------------------------|------------------------------------|-------------------------------------------------|------------------|
| Prel. Parcel CT: 7 | Total Parcel in ROW System: | Acquired by: LOC | DEEDS CT: |
| Under Review: | Options - Pending: | Acquisition MGR: Washington, Linda (LOC) | |
| Released: | Condemnations- Pend: | R/W Cert Date: | |